High-Dose Cytarabine: Cerebellar Function Assessment Tool

Opportunities for Improvement

High-dose Cytarabine (1g/m²/dose) is a chemotherapy agent that is frequently administered on the Bone Marrow Transplant (BMT)/Hematology-Oncology units. Cerebellar toxicity is a known potential adverse effect of high-dose Cytarabine; therefore, it is crucial to obtain a cerebellar assessment prior to each dose. Between the two Hematology-Oncology units, various licensed independent practitioners (LIPs) used different tools to assess cerebellar function. Nurses administering high-dose Cytarabine had confirmation that the cerebellar exam was complete and documentation that "cerebellar exam within normal limits", but they had no way of knowing what cerebellar functions had been tested or how the test was performed.

Aim/Goal

Our goal was to have an assessment tool to guide all LIPs in the standardized approach to assessing cerebellar function and documenting the findings prior to each high-dose Cytarabine administration. In addition, this tool would be part of the patient’s medical record.

Team

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- Allysa Jankowski    PA, MPAS    BMT/Hematology-Oncology Team
- BIDMC Documentation Committee

The Intervention

- Performed a literature search to determine which cerebellar function tests were suitable to evaluate the toxicity of high-dose Cytarabine.
- Created the Cerebellar Function Assessment Record and policy to support it.
- Reached out to the Neurology/Oncology team for their input on the proposed tool.
- Met with the BMT/Hematology-Oncology team for review and approval of the Cerebellar Function Assessment Record and policy.
- Met with Forms Committee to approve the Cerebellar Function Assessment Record and make it a part of the medical record.
- Educated staff members, including MDs, NPs, PAs, and RNs, on new implemented guideline.

Results/Progress to Date

The tool below guides the clinician in performing and documenting a patient’s cerebellar function at baseline and note any deviations prior to high-dose Cytarabine administration.

Lessons Learned

Throughout the process of developing the Cerebellar Function Assessment Record, we identified that there were specific cerebellar exams to monitor for high-dose Cytarabine toxicity.

Next Steps/What Should Happen Next

- The Cerebellar Function Assessment Record is now available in PPGD for BMT-Hematology/Oncology units to use prior to each high-dose Cytarabine administration.
- Continue ongoing evaluation of how this new tool affects work flow and patient care.
- Train nurses to use the tool to do the cerebellar function assessment prior to administering the chemotherapy agent.

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